

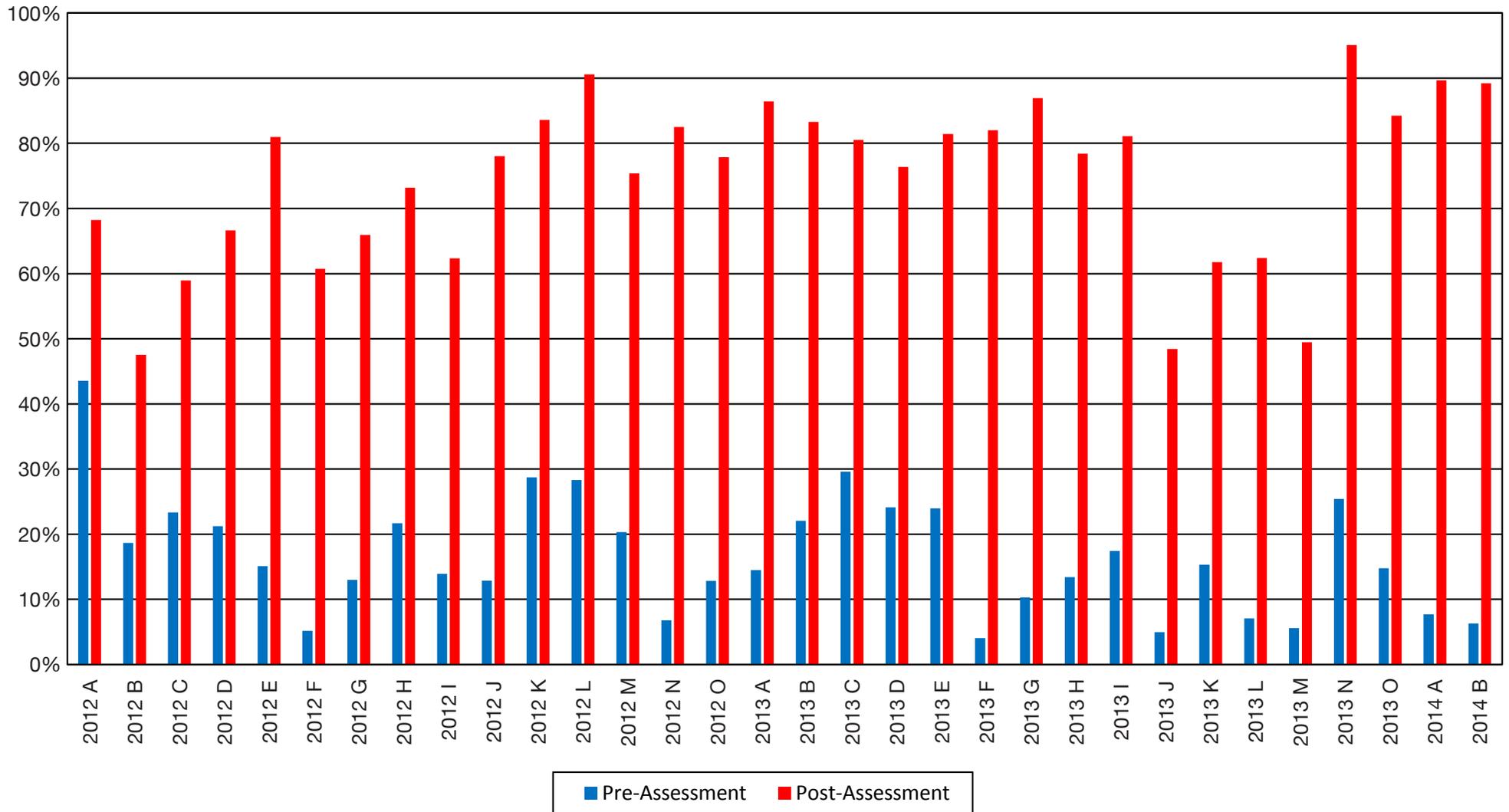
Scientific Management Techniques, Inc.

Pre Training & Post Training Mechanical Skill Assessment Scores
SMT's Manufacturing Skills Training Curriculum; 32 Classes, 664 Participants

Data Represents the Average Pre & Post Percentile Scores per Class

Average Pre-Test Score 16%, Average Post-Test Score 74%*

Assessments Administered with SMT's Standard Timing Model Assessment Machine



*SMT recommends a 50% cut score when using the Standard Timing Model mechanical skill assessment program in the hiring process.
Participants in these classes had little to no previous manufacturing experience or training.

Each training unit consists of a student study guide, student test booklet, many power points, hands-on training aid kit, and an instructor guide.

Level One – Basic Mechanics Training Program

Volume 1: Shop Mathematics

- Unit 1:** Base 10, Decimals, Decimal Equivalents, Percentages
- Unit 2:** Fractions
- Unit 3:** Algebraic Expressions, Simple Equations, Ratio, Proportion
- Unit 4:** Graphs, Charts, Data Handling
- Unit 5:** Weights, Measures, Metric Conversion
- Unit 6:** Exponents, Square Roots, Right Triangles
- Unit 7:** Angles, Plane Figures, Area
- Unit 8:** Measurement of Solid Figures, Volume, Intro. To Trig.
- Unit 9:** Trigonometric Tables

Volume 2: Blueprint Reading & Machine Drawing

- Unit 1:** Elements of Blueprints and Machine Drawing I

Volume 3: Measurement

- Unit 1:** Linear Measurement

Volume 4: Hand Tools

- Unit 1:** Care and Use of Hand Tools
- Unit 2:** Mechanical Fasteners

Volume 5: Basic Mechanical Components I

- Unit 1:** Basic Machines
- Unit 2:** Shafts, Couplings, Pulleys, Belts and Chain Drives
- Unit 3:** Gears and Gear Ratios
- Unit 4:** Advanced Couplings
- Unit 5:** Basic Alignment

Volume 6: Bearings & Lubrication

- Unit 1:** Principles of Bearing Operation, Components, Bearings
- Unit 2:** Principles of Friction and Lubricants

Volume 7: Basic Mechanical Components II

- Unit 1:** Levers, Cranks, Linkages, and Springs
- Unit 2:** Types and Uses of Cams, Timing Adjustments
- Unit 3:** Use of Elementary Timing Model in Timing Adjustments

Volume 8: Machine Adjustment Fundamentals Using The ATM

- Unit 1:** Troubleshooting, Problem Solving, and Problem Identification Techniques
- Unit 2:** Set Up Machine Standards Using the ATM
- Unit 3:** Problem Solving on Multiple Systems Using the ATM

Volume 8-A: Basic Pneumatics & Hydraulics

- Unit 2A:** Air Compression, Properties of Air
- Unit 2B:** Basic Pneumatics, Compressors, and Air Pressure Gauges
- Unit 3A:** Hydraulic Flow and Control

Volume 9: Electrical Components

- Unit 1:** Principles of Electricity, AC & DC Circuits
- Unit 2:** Basic Circuit Components, Switches, and Relays
- Unit 3:** Digital Multimeter, Basic Measurements
- Unit 4:** Input and Output Devices
- Unit 5:** Electrical Schematics
- Unit 6:** Generators & Transformers
- Unit 7:** DC Machines
- Unit 8:** Three-Phase AC & DC Motors

Volume 10: Pump Basics

- Unit 1:** Pumping Basics

Volume 11: Valve Operation & Types

- Unit 1:** Valve Operation and Type

Vol 11A: Basic Process Control

- Unit 1:** Introduction to Process Control
- Unit 2:** Basic Definitions
- Unit 3:** Pressure
- Unit 4:** Temperature
- Unit 5:** Level
- Unit 6:** Flow
- Unit 7:** Analytical instruments and Terminology
- Unit 8:** Transmitters
- Unit 9:** Controllers
- Unit 10:** Process Control and Control Loops
- Unit 11:** Control Schemes

Level Two – Advanced Mechanics Training Program

Volume 12: Introduction to Industrial Maintenance

- Unit 1:** Failure Analysis

Volume 13: Gearbox Maintenance

- Unit 1:** Gear Maintenance

Volume 14: Bearing Maintenance

- Unit 1:** Bearing Maintenance

Volume 15: Advanced Pneumatic Fundamentals

- Unit 1:** Control Components, Pneumatic Drives
- Unit 2:** Circuit Design

Volume 16: Advanced Hydraulic Fundamentals

- Unit 1:** Control Components, Hydraulic Drives
- Unit 2:** Circuit Design

Volume 17: Advanced Electrical

- Unit 1:** Capacitors
- Unit 2:** Inductors
- Unit 3:** Power in AC Circuits
- Unit 4:** Electrical Troubleshooting Using the ESTD
- Unit 5:** Troubleshooting, AC Motors
- Unit 6:** Troubleshooting, DC Motors

Volume 18: Pump Maintenance

- Unit 1:** Pump Maintenance

Volume 19: Introduction to Welding

- Unit 1:** Welding Safety
- Unit 2:** Gas Welding, Cutting, and Heating
- Unit 3:** Introduction to Arc Welding, MIG - TIG

Volume 20: Machine Shop Practices

- Unit 1:** Machine Shop Safety
- Unit 2:** Hand Tools and Bench Work
- Unit 3:** Metal Cutting
- Unit 4:** The Lathe
- Unit 5:** The Milling Machine
- Unit 6:** The Drilling Machine
- Unit 7:** The Grinding Machine

Volume 21: Advanced Machine Adjustment Fundamentals Using the PMS

- Unit 1:** Troubleshooting, Problem Solving, and Problem Identification Techniques
- Unit 2:** Set Up Machine Standards Using The Packaging Machine Simulator
- Unit 3:** Problem Solving on Multiple Systems Using the Packaging Machine Simulator

Volume 22: Ladder Logic

- Unit 1:** Basic Ladder Logic
- Unit 2:** Planning and I/O Symbols
- Unit 3:** Numbering Systems, Codes, and Logic
- Unit 4:** Symbols and Ladder Logic Basics
- Unit 5:** Ladder Logic Format
- Unit 6:** Program Functions
- Unit 7:** Program Examples
- Unit 8:** Glossary of Terms

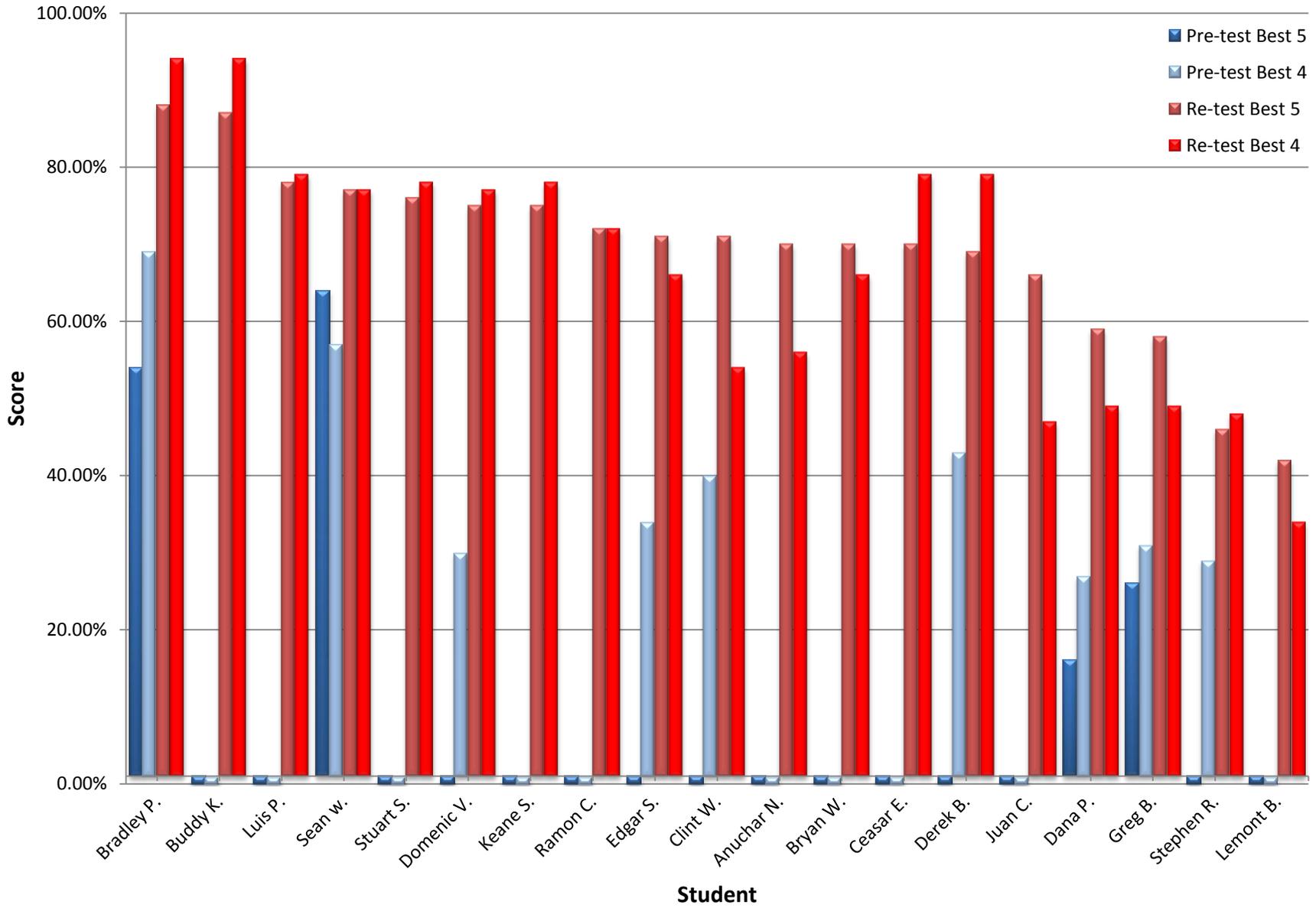
Volume 23: PLC Advanced Electrical

- Unit 1:** Introduction to the PLC
- Unit 2:** PLC Programming and Operation
- Unit 3:** Maintenance and Troubleshooting

VOLUME 24: Advanced Process Control

- Unit 1:** Process Control- Intro Advanced
- Unit 2:** Advanced Pressure
- Unit 3:** Advanced Level
- Unit 4:** Advanced Flow Measurement
- Unit 5:** Advanced Temperature
- Unit 6:** Analytical-PH
- Unit 7:** Advanced Actuators
- Unit 8:** Advanced Process Control-Frequency Drives
- Unit 9:** Heat Exchangers
- Unit 10:** Hazardous Applications
- Unit 11:** Flowmeter Installation
- Unit 12:** Instrument calibration

ELECTRICAL SKILLS TRAINING



Training Units Delivered

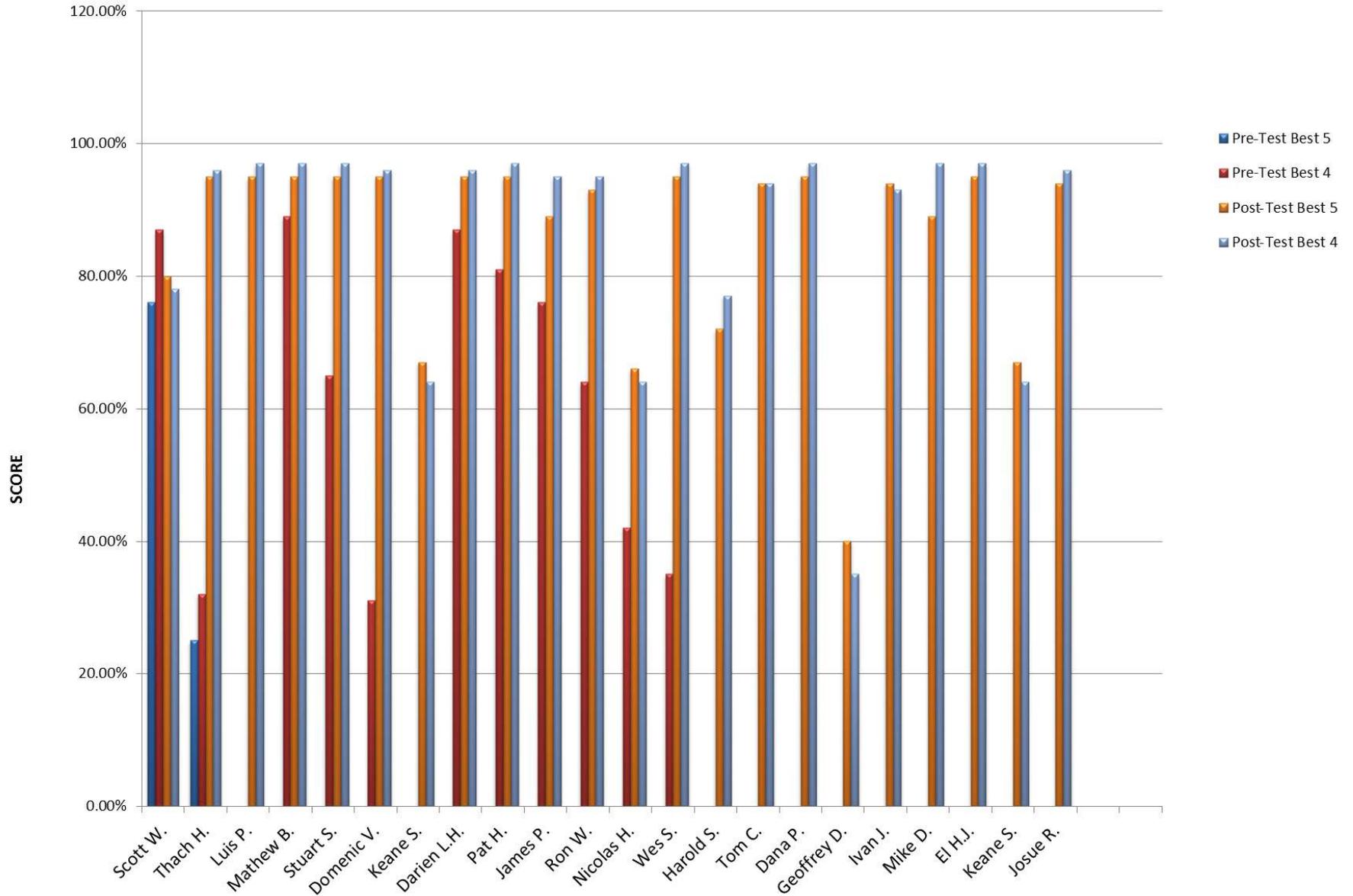
Volume 9: Electrical Components

- Unit 1 Principles of Electricity, AC & DC Circuits
- Unit 2 Basic Circuit Components, Switches, and Relays
- Unit 3 Digital Multimeter, Basic Measurements
- Unit 4 Input/Output Devices
- Unit 5 Electrical Schematics
- Unit 6 Generators & Transformers
- Unit 7 DC Machines
- Unit 8 Three-Phase AC & DC Motors

Volume 17: Advanced Electrical

- Unit 1 Capacitors
- Unit 2 Inductors
- Unit 3 Power in AC Circuits
- Unit 4 Electrical Troubleshooting Using the ESTD
- Unit 5 Troubleshooting, AC Motors
- Unit 6 Troubleshooting, DC Motors

PLC SKILLS TRAINING



Training Units Delivered

Volume 22:

Electrical Components

- Unit 1 Basic Ladder Logic
- Unit 2 Planning and I/O Symbols
- Unit 3 Numbering Systems, Codes and Logic
- Unit 4 Symbols and ladder logic Basics
- Unit 5 Ladder Logic Format
- Unit 6 Program Functions
- Unit 7 Program Examples
- Unit 8 Glossary of Terms

Volume 23:

Advanced Electrical

- Unit 1 Introduction to the PLC
- Unit 2 PLC Programming and Operation
- Unit 3 Maintenance and Troubleshooting